prior art 3

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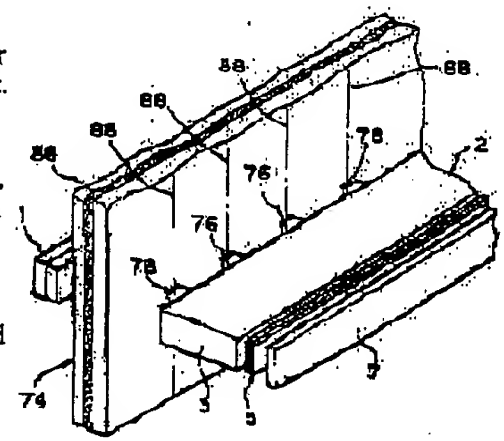
(54) DNA BASE SEQUENCE DETERMINING APPARATUS

(57)Abstract:

PROBLEM TO BE SOLVED: To use an inexpensive light source and a light detection system to enable miniaturation by constituting a fluorescence detection means of a refractive index distribution type lens array, a filter and a CCD line sensor and connecting a high brightness LED to a temp. control circuit.

SOLUTION: For example, the fluorescence detection means 2 is constituted of a refractive index distribution type lens array 3, a fluorescence filter means 5 wherein two filters are superposed one upon another and a solid-state imaging element, for example, a CCD line sensor 7. When DNA segments 76 migrated downwardly along the respective migration passages 88 of the gel electrolyte layer 86 of a migration 74 are irradiated with the excitation light from a high brightness LED 1 from the front, fluorescence is generated. This fluorescence is incident on the lens array 3 and the light passed through the lens array is incident on the filter 5. Excitation light, stray light or background light having a wavelength other than a fluorescence component is cut by the filter 5. Thereafter, the fluorescence passed through the filter 5 is detected by the sensor 7 to be converted to an electric signal.



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